The requirements for discs sold in Canada and the United States are outlined, as well as the need for investigation of methods and similar controls in other countries.

Some aspects of the international standardization of sensitivity discs, and ultimately of sensitivity methods, are discussed. Recommendations concerning this are made.

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RÉSUMÉ

Les antibiogrammes gagnent de l'importance aux yeux du clinicien et c'est pourquoi leur emploi augmente chaque jour. Les hôpitaux et les producteurs de disques antibiotiques employés dans ces tests ont des responsabilités bien déterminées à l'égard du degré de précision que doit atteindre cette épreuve. Les disques vendus au Canada et aux Etats-Unis sont soumis à certaines exigences exposées dans le texte. Il serait opportun que les producteurs des autres pays se soumettent à un contrôle semblable afin d'obtenir un degré d'uniformité. Les auteurs terminent en offrant quelques recommandations à l'égard d'une standardisation internationale des disques de sensibilité et, finalement, des méthodes d'usage de ces disques.

ALLERGY IN CANADA*

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ALLERGY IN CANADA is of course much like that found elsewhere in the world, and particularly in the United States of America. It is modified by the varying flora in the several sections of the country, the climate, latitude and terrain, and by the various occupations of the people. The population of Canada is very mixed and of many origins. Generally there seems to be no difference, allergically, among the many racial groups.

The climate in general is temperate and, except on the Pacific and Atlantic Coast, varies from subzero (Fahrenheit) in winter to very hot in midsummer. The cold winters cause people to live in tightly closed centrally heated houses for six to seven months each year. These conditions perhaps account for the heavy incidence of house dust sensitivity (and other environmentals such as animal dust). Such confined living combined with a highly mobile population also leads to frequent waves of respiratory infections which pose a serious threat to infectious asthmatics.

Pollen allergy is widespread in Canada and presents an important problem, both in the number of patients and in the severity of symptoms. Pollen causes typical hay fever, pollen asthma, dermatitis and occasionally urticaria. There are three typical pollen seasons. The first, due to deciduous tree pollen, starts in April, varying in time with the latitude and the weather and rarely extending beyond the end of May except in more northerly regions. The most common offenders are from the poplar family, the elms (very commonly planted in cities and towns), the maple, the ash and the oak. In different regions of Canada one or other type predominates. On the prairies trees are relatively uncommon, except in the cities, and present no problem. The tree allergy season is short, usually about five weeks, but is intense and may cause very severe symptoms. Probably the number of cases of tree pollinosis is less than for grass or weed pollinosis.

Grass pollinosis is common throughout the populated areas, and its season usually extends from late in May to mid-July, although some scattered and less abundant species pollinate all summer and may account for a few late summer cases. The grasses occur freely in all cultivated areas, and those which are most prevalent include the blue grasses (Poa), timothy (Phleum), red top (Agrostis) and brome grass (Bromus). Clinically the problem varies greatly each year with the abundance of airborne pollen which is, of course, related to weather conditions. Frequent rain may cause a huge growth of grass, but the moisture causes the thin coated grass pollens to swell, fall and disintegrate. Plantain is widespread across Canada. Much of it is the common plantain (*Plantago major*) which produces very little pollen and is unimportant clinically. The English plantain (*Plantago lanceolata*) occurs in some areas in eastern Canada and may present local problems in midsummer.

The most important pollen problem in Canada is that due to weeds. It is very common in the large populous eastern or central provinces of Ontario and Quebec, i.e. in the region of the lower Great Lakes and upper St. Lawrence River. In the lower St. Lawrence region and in the Atlantic provinces the problem is much less, but appears to

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be increasing. West of the Great Lakes, the weed problem is increasing as weed growth extends northward from the north-central United States, but decreases as one proceeds westward and is almost non-existent west of the Rocky Mountains.

The most important weeds are the ragweeds (species include *Ambrosia elatior, Ambrosia trifida* and *Ambrosia psilostachya*) as well as the marsh elders (*Iva xanthifolia* and *Iva ciliata*) and the cocklebur (Xanthium spp.). This group of weeds is the chief source of trouble in Ontario and Quebec and is important in Manitoba. It is rare in the western prairie provinces of Saskatchewan and Alberta, and absent from the Pacific Coast province of British Columbia. The sages (Artemisia spp.) occur chiefly in the prairie region and are important, but the most common and frequent offender in this region is Russian thistle (*Salsola pestifer*), which in dry years is a major source of trouble.

Weed control has made little headway, and as the country is opened up with roads and development of great areas of population the weed problem increases. The ragweeds have marched westward from Winnipeg nearly 300 miles in a generation, and the march appears to be continuing. Regions such as Port Arthur and Fort William at the western end of Lake Superior, once hay fever refuges, are now invaded. The Russian thistle, accidentally imported into the central plains area of the United States, has now spread northward into Canada where it became exceedingly abundant in the drought years of the 1930's.

Mould spores are very plentiful in the air throughout the country. The common saprophytes, Alternaria, Hormodendrum, and Helminthosporium, occur widely in the warmer months, appearing as soon as the snow leaves the ground and disappearing with the first snow blanket. There is also a wide group of spores occurring with little seasonal variation throughout the year including Penicillium, the yeasts, Rhizopus, Monilia, etc. Clinical sensitivity is common, particularly in the prairie provinces. It undoubtedly accounts for the many cases of known hay fever in which symptoms start before the frost destroys the weeds and in which trouble continues until snow comes in November or December.

In agricultural areas, most notably the Great Plains, pathogenic fungus spores such as rust, smut and bunt are very common, varying in abundance each year and having a season of about four weeks. While these spores are quite allergenic, as shown first by Cadham in 1923 and later proven by Wittich in 1937, our experience indicates that less than 10% of the rural allergic population are affected and the problem is a relatively minor one, clinically.

Industrial dusts are of course a very important source of allergy. Perhaps the most serious of these is grain dust. This term is a very general one, but as in the case of house dust, it is remarkably uniform allergenically. Various things in grain dust have been suspect, such as saprophytic and pathogenic mould spores, but the dust itself seems to be intrinsically allergenic. This is borne out by the fact that the crushing of grain, as for feed or milling, greatly enhances its allergenicity. There is a distinct variation in the dusts from wheat, barley, rye and oats, but only in degree, and generally sensitivity to one implies sensitivity to all. Grain dust allergy causes rhinitis, asthma and a particularly severe form of atopic dermatitis. It is a serious problem to farmers and to those engaged in the grain trade. It is also an important problem near the great shipping grain terminals and mills, and citizens of such cities as Fort William and Port Arthur at the head of the Great Lakes often suffer from it, even if not engaged in any way in the grain trade. Farmers, of course, also suffer commonly from sensitivity to animal and poultry dust. Animals create important environmental problems in homes.

Furriers and those engaged in the great fur trade often suffer from respiratory and skin allergy. Other industries also present problems to the allergic sufferer, and among these I might mention the pulp and paper factories and the smelters, both of which produce highly irritant if not allergic gases. Smog is an uncommon phenomenon in Canada.

Food allergy is relatively common and presents no unusual features. Fish sensitivity is probably more common in the Maritimes. Owing to a highly organized and extensive distribution system, most of the population has a highly varied diet and there are few notable seasonal or special food problems. Drug sensitivity is becoming more common, or more frequently recognized, and differs little from that seen elsewhere. Penicillin, sulfonamides and aspirin continue as major drug allergens.

In Canada, it is probable that about 60% of respiratory allergy is due to inhaled and environmental allergens or food. The remainder, the so-called intrinsic cases, have a high degree of infectious factors.

The population is becoming highly conscious of allergy, and this probably reflects the popular situation in the U.S.A. Multiple cases in families are common and many people are becoming aware of the hereditary and environmental problems involved. Lay interest in allergy seems at times to be ahead of that of the general medical profession.

There is a disturbing tendency among physicians for too frequent use of corticosteroids in allergic cases without adequate effort at simpler and safer management. This probably reflects a lack of experienced allergists in the country and a rather uniform neglect of the subject in undergraduate medical education. Fortunately, more and more systematic teaching of allergy to medical students is appearing; in at least half of our medical schools some formal instruction is now being given, and it is expected that more will gradually follow this path.

Much of Canada has been carefully surveyed for airborne allergens and more will be done. The relationship of climate to allergic disease is often still obscure, although climate is too often blamed for a change in the patient's condition when a more rational explanation can be found in his immediate environment. The farmer who is benefited by moving to the warmer but damper sea level region of the Pacific Coast may only be responding to his removal from grain or animal dust or weed pollen. Basic research into the fundamental processes of allergy and in respiratory physiology is going forward in several Canadian universities and clinical studies are also continuing in various centres. It is hoped that with improving undergraduate and graduate education and with continually advancing knowledge the management of allergic disease in Canada will continue to improve.

RÉSUMÉ

L'allergie au Canada est liée au problème que présentent des hivers longs et rigoureux avec l'atmosphère chaude et sèche des habitations ainsi que les différents pollens libérés du printemps à l'automne. Il existe trois saisons de pollination, à savoir: celle des arbres à feuilles caduques, d'avril à mai, comprenant les ormes, les érables, les frênes et les chênes; celle des herbes, de mai à la mi-juillet, comprenant le pâturin (*Poa*), la fléole des prés (*Phleum*), l'agrostide stolonifère et les bromes, et enfin, celle des mauvaises herbes, d'août à octobre, comprenant les ambrosies (surtout la Grande Herbe à poux), les ives (*I. xanthifolia* et *ciliata*), la lampourde piquante (*Xanthium*) et la soude roulante (*Salsola pestifer*). Les spores de moisissures contribuent à compliquer la situation, de la fonte des neiges au retour de l'hiver. Chaque région possède ses problèmes particuliers qui varient selon le climat, la géographie et la flore. Les poussières industrielles comme celles des céréales forment également une source d'allergie très importante. De même que dans les autres pays certains aliments et médicaments peuvent aussi être en cause.

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Case Reports

MALIGNANT MESENCHYMOMA (HÆMANGIOBLASTOMYXOMATOUS VARIETY) IN A FIVE-YEAR-OLD BOY*

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MESENCHYMOMA is a term which has been in use for a relatively short time. This term was coined by Gilmour[4] in 1943 to indicate that the tumour consists of two or more components derived from mesenchyme. While the benign varieties of this tumour occur most commonly in the urogenital tract[11] and less commonly in the muscles and subcutaneous tissue,[10] the malignant variety, although frequently encountered in the urogenital tract[7] and breast,[10] can be found anywhere in the body.

The criteria for malignant mesenchymoma are fulfilled when the tumour is composed of two or more cell types, each type being malignant. Each type of tissue is derived from primitive mesenchyme, and none of these components "can be fitted into the standard recognized varieties of sarcoma, and each one would have to receive a different compound name if they were to be designated by a term recording all of the component parts".[10]

It is not in the scope of this communication to review the subject of malignant mesenchymoma, since this has been done recently and comprehensively by several authors.[7, 8, 10] The purpose of this publication is to report on a case of malignant mesenchymoma of a hæmangioblastomyxomatous type, a rather rare variety. An attempt will be made to arrive at some conclusion as to its histogenesis and pathogenesis, by means of a careful morphological study.

Clinical summary.—A five-year-old boy, M.L., was admitted on August 4, 1957, to the Kingston General Hospital with a six-week history of a swollen area at the angle of the mandible on the left side. Further history revealed that he was well until November 1956, at which time he developed what was thought by his parents to be measles, since his older sister had just recovered from this infection. There was, however, no medical confirmation of this diagnosis. The rash lasted four to five days; he had a slight fever and a slight cough at that time. The boy did not regain his appetite. In April 1957, he was seen by an ear, nose and throat specialist, because of soreness of the left ear. The temperature was not elevated. The patient was treated with antibiotics, and the soreness disappeared only to return when the treatment was stopped. The antibiotics were readministered and the improvment lasted this time only for a few days. He became listless and tired, and refused to play. He was then seen in the out-patient department of the Kingston General Hospital, in May 1957, where it was noticed that the mesenteric lymph nodes were enlarged. He responded to antibiotics for a short period only. The lymph nodes disappeared, but since the tiredness and listlessness returned, he was admitted to the hospital on June 8 for investigation. Two days after admission, his left parotid region was noted to be swollen but all tests performed were negative. He was sent home when the diagnosis of mumps was made. Since the swelling still persisted five weeks later, enlarging at night, and the child suddenly developed a left-sided strabismus, he was admitted on August 4, 1957, to Kingston General Hospital. The functional enquiry revealed that the child had recently suffered from nightly headaches, lasting for 10 to 15 minutes and located in the central frontal area. On examination, the significant finding was the stony hard mass on the left side of the face over the parotid area. It was slightly tender, smooth and regular. On the inside of the mouth there was a suggestion of a swelling in the left side of the posterior

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